

# WORLD'S MOST ADVANCED BATTERY TESTER-CHARGER!

**ASSOCIATED  
HARTMAN**

**"Test 'n' Charg"**

**MODEL RT100**

**New Distinctive Design...**

**Exclusive Engineering Features!**

The Associated Equipment Corporation—a pioneer in the development of outstanding battery testers and chargers—now offers a completely new and different type of all-purpose unit.

**TEST DATA:** Makes every type of test recommended by any battery manufacturer—eliminates voltage drop in charger clamps and cables—provides flexibility and accuracy unmatched by any other tester-charger.

TESTS	SCALES			
	0-2v.	0-8v.	0-16v.	0-300 amps
1. BATTERY "NO LOAD"—open circuit voltage of individual cells.	✓			
2. BATTERY "LIGHT LOAD"—individual cell voltages under 10-amp load.	✓			✓
3. BATTERY "HEAVY LOAD"—individual cell voltages under heavy load.	✓			✓
4. BATTERY "CAPACITY"—overall voltage—one reading—heavy load.		✓	✓	✓
5. BATTERY AMPS—reads charging and discharging amps.				✓
6. VOLTAGE REGULATOR—sets operating voltages accurately.		✓	✓	
7. BATTERY CABLES—also voltage drops on generator and other wiring.	✓			
8. WIRING—checks for broken wires, defective switches, bulbs, etc.		✓	✓	

**OTHER METER SPECIFICATIONS:** 6" wide, 4" needle and 5" scales for easy reading. Static treated acrylic case resists scratches and common solvents. Rated 1% accurate at 2.0-volts, uses 1/2% accurate dropping resistors and fine D'Arsonval movement.



## CHARGER DATA:

- **RECORD-A-CHARG**—shows accumulated hours of charging time. (Explained in detail on page 3—Model R100.)
- **CIRCUIT BREAKER PROTECTION**—dual AC circuit breaker with thermal overload switch.
- **EXCLUSIVE SAFETY CLAMPS**—completely insulated, solid copper, over 400-amp capacity.
- **NON-AGING DURATRON RECTIFIERS**—high current density-type, an Associated exclusive!
- **INSIDE CABLE STORAGE**—cables store inside cabinet—no wrapping around hangers. Saves wear and tear on cables—gives them years of extra life.
- **WEATHER PROTECTED**—rubber gasket around steel lid protects instrument panel—keeps out dust, dirt, water.
- **AUTOMATIC RATE SELECTOR**—charger adjusts automatically for 6 or 12-volts when charging rate is set.

**GUARANTEED!** Model RT100 is guaranteed against defective materials and workmanship for one year from date of owner's purchase. DURATRON Rectifier is guaranteed for 2 years or 1000 hours of charging time—whichever is longer!

## SPECIFICATIONS

Model	H	W	D	Net Wgt.	U.L. Ratings			Charge Rates	Cables	A.C. Cord	"Load Test" Discharge**		Discharged Battery Ratings		
					Volts	Amps	Watts				6 Volt	12 Volts	Volts	Amps	Watts
RT100	*30"	21"	14"	87	7.4 14.8	100 60	740 888	6	9' #4, 1033 strand, neoprene jacket, extra flexible	15' #14-2	200 amps.	150 amps.	6.5 13.5	110 70	715 945

\* Lid Closed

\*\*Discharge rate varies with battery conditions. "Load Test" compensates for these differences.



# Associated's Rapid

## TESTER and CHARGER

MODEL AH110

### Tests and Charges 6 or 12-Volt Batteries on Just One Hook-Up!

- **COMPARISON LOAD TEST**—tests all cells at same time!
- **DISCHARGE RATE SELECTOR**—charger automatically selects correct discharge rate when load testing 6 or 12-volt batteries!
- **EXTRA SAFE OPERATION**—3-way circuit breaker protection:
  - (1) 15-amp. AC circuit breaker prevents damage from internal shorts.
  - (2) Reversed battery connections, other overloads safeguarded by 105-amp. DC circuit breaker.
  - (3) Rectifier protected by thermal overload—can't overheat!
- **CONVENIENT CABLE STORAGE**—cables store inside cabinet—no dragging or wrapping around hangers. Adds years of extra life to cables.
- **HANDSOME, SPACE-SAVING CABINET**—features easy-to-read instrument panel for operator and customer—helps build battery sales!
- **WEATHER PROTECTED**—rubber gasket around steel lid protects instrument panel—keeps out dust, dirt, water.
- **EXCLUSIVE DURATRON RECTIFIERS**—non-aging, high current density. Gives charger extra long life!

**GUARANTEED** Model AH110 is guaranteed against defective materials and workmanship for one year from date of owner's purchase. DURATRON Rectifier guaranteed for one additional year.



**MODEL R150H**

Same cabinet and electrical system as R300H but different specifications. Can charge twenty-five 12-volt or fifty 6-volt batteries at 6-amp. rate. (See chart below.)

## INDUSTRIAL BATTERY CHARGER MODEL R300H

**Handles Heaviest Load Requirements at Lowest Operating Cost—Charges 6 and 12-Volt Batteries at One Time!**

- **CONVECTION COOLED**—no fan motor to wear out; eliminates drawing in acid fumes that corrode charger.
- **MULTIPLE CHARGING**—can charge fifty 12-volt or one hundred 6-volt batteries in parallel at 6 ampere rate!
- **SILICON RECTIFIER**—the finest made, guaranteed to give years of trouble-free service.
- **FULLY PROTECTED**—highest quality, magnetic circuit breaker protection.
- **TWENTY-ONE CHARGING RATES**—provides complete flexibility in making rate adjustments.
- **COPPER HEAT SINK**—keeps heat from rectifiers, adds years of extra service life.
- **EASY TO SERVICE**—all parts quickly accessible for fast, easy maintenance.

**GUARANTEED:** Models R300H and R150H are guaranteed against defective materials and workmanship for one year from date of owner's purchase. SILICON Rectifier guaranteed for 2 years.



### SPECIFICATIONS

Model	H	W	D	Net Wgt.	U.L. Ratings			Charge Rates	Cables	A.C. Cord	"Load Test" Discharge**		Discharged Battery Ratings		
					Volts	Amps	Watts				6 Volt	12 Volts	Volts	Amps	Watts
AH110	*34"	21"	14"	87	7.4 14.8	100 60	740 888	6	9' #4-2 1033 strand	15' #14-2	200 amps.	140 Amps.	6.5 13.5	110 70	715 945
R300H	28"	16"	12"	174	15.0	300	4500	21	None	None	—	—	—	—	—
R150H	28"	16"	12"	145	15.0	150	2250	21	None	None	—	—	—	—	—

\* Lid Closed

\*\* Discharge rate automatically varies with battery conditions. "Starter Load Test" automatically adjusts for differences.



# ASSOCIATED RECORD-A-CHARG

**MODEL R100**



**Year's Most Talked About Charger—  
Adds and Records All Charging Time  
... Provides Proof of Profit!**

Now for the first time you can take the guesswork out of figuring charger profits. The "Record-A-Charg" gives management an accurate and fool-proof method for checking charging time against income. Helps make employees doubly sure to collect from customers... prolongs charger life by enabling maintenance to be on a regularly scheduled basis. Unit is sealed into cabinet—can't be tampered with.

- **DUAL AC CIRCUIT BREAKER**—includes thermal overload switch; provides maximum protection against shorts, overloads, fan failure, reversed hook-ups, obstructions to cooling system.
- **AUTOMATIC RATE SELECTOR**—charger adjusts automatically for 6 or 12-volts when charging rate is set.
- **AUTOMATIC SHUTOFF**—electric timer stops charger automatically at end of charge.
- **EXCLUSIVE SAFETY CLAMPS**—solid copper, insulated clamps—400-amp. capacity. Eliminates arcing, possible battery explosions!
- **WEATHER PROTECTED**—lid seals out dust, dirt, moisture—protects meters from damage.
- **EXCLUSIVE DURATRON RECTIFIERS**—non-aging, high current density-type—prolongs charger life!
- **NYLON BEARINGS**—big 8" x 1.75" wheels.

## MODEL R80

Same cabinet and features as R100—different ratings. (See chart below.)

## MODEL R60

Light duty version of Model R80—no "Record-A-Charg". Select either 6 or 12-volt fast charging rate. At end of fast charge unit automatically "flips over" to slow rate of 10-amps. on a 6-volt battery or 3-amps. on a 12-volt battery.



**GUARANTEED!** Above models all guaranteed against defective materials and workmanship for one year from date of owner's purchase. DURATRON Rectifiers on "Record-A-Charg" Models R100 and R80 guaranteed for 2 years or 1000 hours of charging time... whichever is longer! DURATRON Rectifier on Model R60 guaranteed for two years.

## SPECIFICATIONS

Model	H	W	D	Net Wgt.	U.L. Ratings			Charge Rates	Cables	A.C. Cord	Discharged Battery Ratings		
					Volts	Amps	Watts				Volts	Amps	Watts
R100	*29"	15"	14"	60	7.4 14.8	100 60	740 888	6	9' #4, 1033 strand	15' #14-2	6.5 13.5	110 70	715 945
R80	*29"	15"	14"	52	7.3 14.9	80 40	584 596	4	8' #6 gauge	15' #16-2	6.7 14.0	90 50	603 700
R60	*29"	15"	14"	46	7.5 14.2	50 30	375 426	4	8' #6 gauge	15' #16-2	6.7 13.0	60 40	402 520

\* Lid Closed



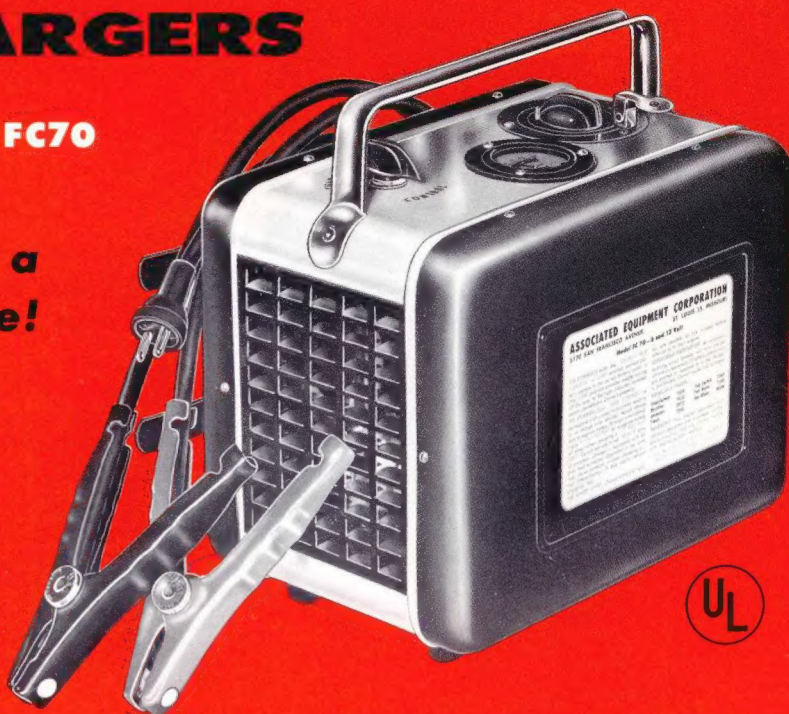


# PORTABOUT CHARGERS

**MODEL FC70**

**Small but Mighty . . . Packs a Powerful Charge for Its Size!**

- **CIRCUIT BREAKER PROTECTION**—Dual AC circuit breaker with thermal overload switch, guards electrical system against fan failure, shorts, overloads, obstructions to cooling system.
- **AUTOMATIC RATE SELECTOR**—charger adjusts automatically for 6 or 12-volts when charging rate is set.
- **STOPS AUTOMATICALLY**—at completion of charge, electric timer stops charger automatically!
- **SOLID COPPER SAFETY CLAMPS**—insulated for extra safety. Prevents arcing and possible battery explosions. 400-amp. capacity.
- **NON-AGING DURATRON RECTIFIERS**—an Associated exclusive. High current density-type give charger extra long life.
- **CONVENIENT CABLE HANGERS**—keep cable and cord from underfoot when not in use—protects them from unnecessary wear and tear.



**MODEL F60**

Same cabinet as Model FC70 . . . same electrical system as Model R60 including fast-to-slow rate feature.

**GUARANTEED!** Above two models are guaranteed against defective materials and workmanship for one year from date of owner's purchase. DURATRON Rectifier guaranteed for two years.

## SPECIFICATIONS

Model	H	W	D	Net Wgt.	U.L. Ratings			Charge Rates	Cables	A.C. Cord	Discharged Battery Ratings		
					Volts	Amps.	Watts				Volts	Amps	Watts
FC70	11"	11½"	14"	32	7.8	70	546	4	8' #6 gauge	15' #16-2	7.3	80	584
					14.0	40	560				13.5	50	675
F60	11"	11½"	14"	32	7.5	50	375	4	8' #6 gauge	15' #16-2	6.7	60	402
					14.2	30	426				13.0	40	520



### BOOSTER CABLES

**No. AES-2**

(1 set per carton)

12' cables with neoprene jackets—No. 4 gauge, 1033 strand copper. Insulated solid copper safety clamps—400 amp. capacity. Replaceable copper jaws.

### SAFETY CLAMPS

**No. 6T402-3**

(6 pairs per carton)

**No. T402-3**

(1 pair per carton)

Insulated for extra safety! 400 amp. capacity—replaceable jaws—scientific strain reliefs.

### ECONOMY CABLES

**No. AES-3**

(1 set per carton)

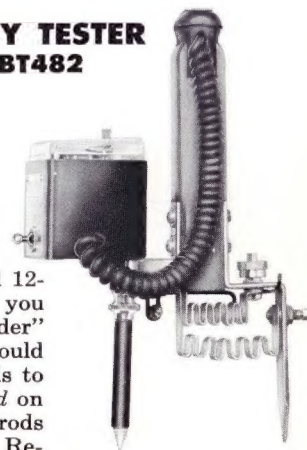
Shipped in eye-catching counter display for resale to car owner. No. 6 gauge, 259 strand 8' copper cables—copper plated steel clamps.



### BATTERY TESTER

**No. BT482**

Open circuit and load type . . . 6 and 12-volts. Remembers cell reading when you forget. Set adjustable "reminder finder" to first cell reading—other cells should read within 5 dimensions. Scale reads to 1/100th of a volt with load or no load on any 6 or 12-volt battery. Adjustable prods fit cells of any 6 or 12-volt battery. Removable meter has 90 day guarantee—features unbreakable, water repellent front.



FC 75930  
Printed in U.S.A.

**Sold Only Thru Recognized Automotive Wholesalers & Jobbers**

## ASSOCIATED EQUIPMENT CORPORATION

Manufacturers of Associated-Hartman Rapid Battery Testers & Chargers, Kar-Starts, Fast-Cutter Power Mowers and Fast-Cooker Barbecue Braziers  
5170 San Francisco Ave. St. Louis 15, Missouri



# ASSOCIATED

**SLOW CHARGERS  
MARINE PAKS  
KAR-STARTS**

*"Charg-it"*

## SLOW CHARGERS



**PLUG  
INTO CAR  
CIGARETTE  
LIGHTER**



### MODEL S3

(Cigarette Lighter-Type)

Revolutionary new idea in home-type battery chargers. Simple 2-step operation: (1) Plug into wall socket, (2) Plug into car cigarette lighter. No hood to raise—no battery posts to identify—no messy hands. Charges average battery overnight—costs only 2 to 3¢ per charge. For all American-made 12-volt cars.

Safe! Automatic reset circuit breaker protects both charger and battery from reversed connections, short circuits or too high charging rates. Charging rate tapers *automatically* as battery nears full charge.

A must for every city and suburban car owner who doesn't want to get caught with his "amps down".

Packed 6 per carton—includes eye-catching counter display (illustrated).



### MODEL S4

Same as Model S3 except charger clamps replace cigarette lighter plug-in feature. Ideal for the car owner who also has a boat, tractor, farm.

### SPECIFICATIONS

MODEL	HEIGHT	WIDTH	DEPTH	NET WT.	VOLTS	AMPS.	CHG. RATES	CHG. CABLES	POWER CORDS
S3	4½"	4¾"	5"	5½	12	3	1	6' #18	8' #18-2
S4	4½"	4¾"	5"	5½	12	3	1	6' #18	8' #18-2

## MARINE PAK



### MODEL MP1

(Does not include battery or charger.)

Easy to lift and carry . . . strong, sturdy construction guarantees a lifetime of rugged use. Battery fits snug in holddown *inside* cabinet—can't slide or move around. Small, compact—requires a minimum of floor space. Additional holddown provides permanent place for cabinet in boat—snap locks enable it to be installed or removed from holddown in seconds. Insulated cable openings. Charger models S4 and 6-4 are recommended for use with the MP1 Marine Pak (see pages 1 and 2).



# ASSOCIATED

## "Charg-it!"

### SLOW CHARGERS



#### MODEL 6-4

for home users, farmers, boat owners, small fleets. Recharges average battery in 12 hours.

#### EXTRA PROTECTION!

Automatic reset circuit breakers protect both charger and battery from reverse connections, short circuits, too high charging rates.

#### FULL WAVE DURATION RECTIFIERS!

Unconditionally guaranteed for two years. Highest in quality... tops in efficiency.

#### TAPERING FEATURE!

Charging rate tapers automatically as battery nears full charge.

#### ISOLATED TRANSFORMERS!

Double-wound, isolated, transformers—extra safe!

#### GUARANTEED!

All chargers guaranteed against defects and workmanship for one year from date of owner's purchase.



#### MODEL 20-12

For fleets, farms, large boats. Recharges average battery in 4 to 5 hours. Can slow charge one battery or charge 2 to 10 batteries at one time when connected in parallel. Four charging rates—switch to change from "Hi" to "Lo" rate.

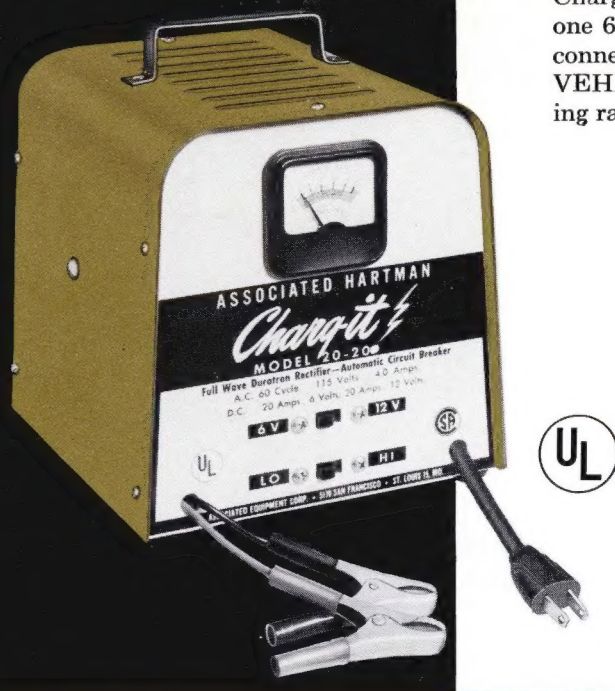


### SPECIFICATIONS

MODEL	HEIGHT	WIDTH	DEPTH	NET WT.	VOLTS	AMPS.	CHG. RATES	CHG. CABLES	POWER CORDS
6-4	4½"	4¾"	5"	6	6	6	1	6' # 18	8' # 18-2
					12	4	1		
20-12	7"	6¾"	7"	12	6	16	1	6' # 14	8' # 18-2
					6	6	1		
					12	12	1		
					12	4	1		



## MODEL 20-20



For larger fleets, used car lots, ranches, heavy duty farm use. Charges average battery in 2½ to 3 hours . . . can slow charge one 6 or 12-volt battery or 2 to 20 batteries at one time when connected in parallel. **IN AN EMERGENCY, CAN START VEHICLES AFTER A 10-MINUTE CHARGE!** Four charging rates—"Hi"—"Lo" switch controls rates.

## MODEL S36 (Multi Battery Charger)

6 amp, 0-36 volt unit. Can charge six 6-volt or three 12-volt batteries at one time—controllable charge of 0-6 amps. Coarse and fine controls. *Full wave Duratron rectifier . . . isolated transformer . . . power cord supplied!*



## MODEL S72 (Multi Battery Charger)

Most versatile wall-type slow charger made—**ACTUALLY 3 CHARGERS IN ONE!**

(1) 6 amp, 0-72 volt charger. Can charge twelve 6-volt batteries or six 12-volt batteries at one time or any combination of them up to thirty-six 2-volt cells at controllable rates from 2 to 6 amps.

(2) 12 amp, 0-36 volt charger. Can charge six 6-volt or three 12-volt batteries or any combination of them up to 18 cells at controllable rates from 0 to 12 amps.

(3) Two independent chargers with ratings of 6 amps, 0-36 volts each.

Coarse and fine controls—72 different charging rates. No tubes or bulbs to burn out. *Full wave Duratron rectifier . . . isolated transformer . . . power cord supplied.*



## SPECIFICATIONS

MODEL	HEIGHT	WIDTH	DEPTH	NET WT.	VOLTS	AMPS.	CHG. RATES	CHG. CABLES	POWER CORDS
20-20	7"	6¾"	7"	16	6	20	1	6' #12	8' #18-2
					6	8	1		
					12	20	1		
					12	3	1		
					12	3	1		
S72	15"	9¼"	10¼"	21	0-72	6	72	8' #14 (2 prs.)	8' #18-2
					0-36	12	72		
S36	7"	6¾"	7"	12	0-36	6	36	8' #14	8' #18-2



# Keeps "Hot Shot" Batteries Charged AUTOMATICALLY!

# ASSOCIATED



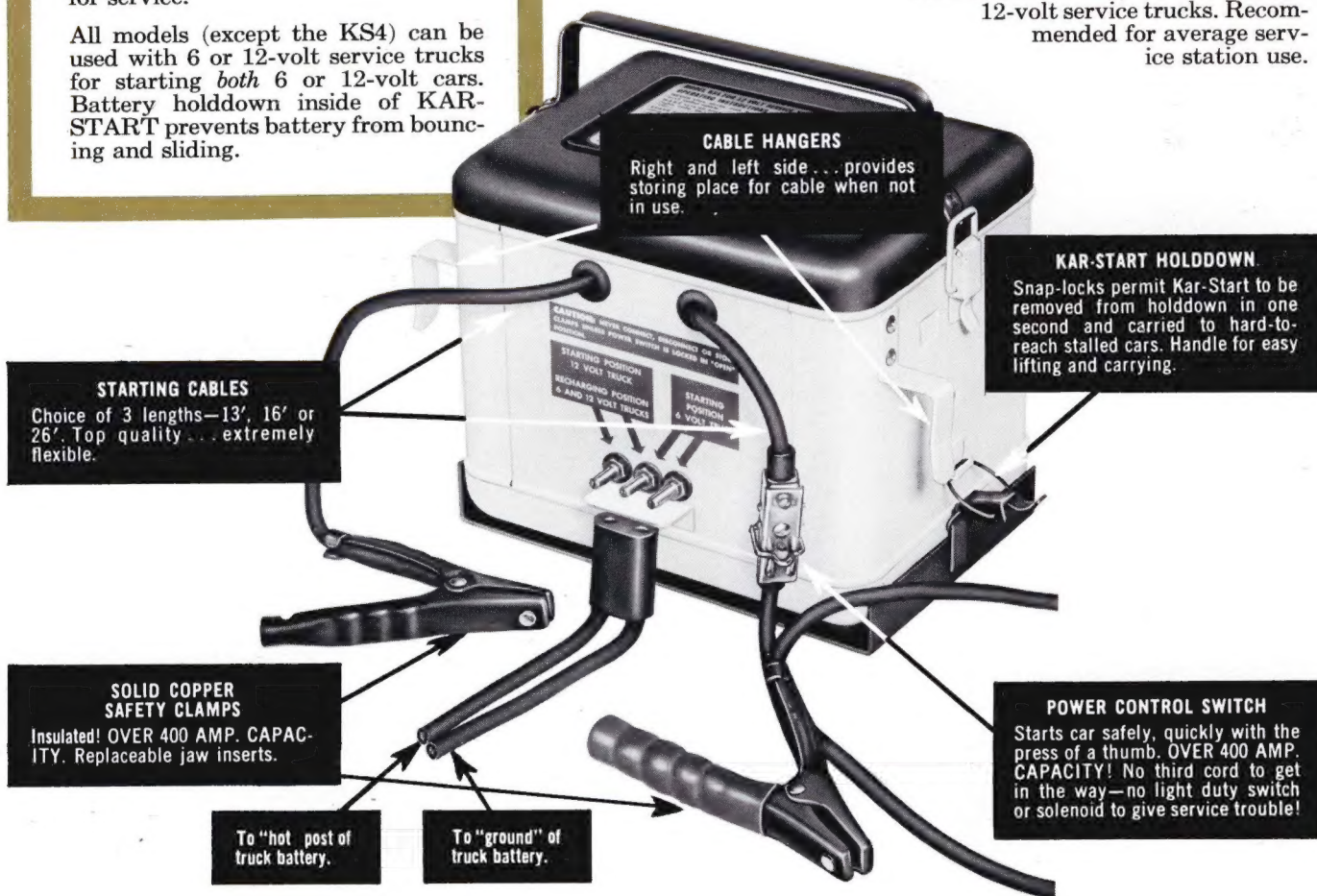
The *original* and *only* KAR-STARTS—safest and most dependable way to start "dead" battery cars without dangerous and damaging pushing! Ideal for warm-climate use. Truck generator keeps KAR-START battery charged *automatically*—eliminates removing battery from truck for recharging while customers wait for service.

All models (except the KS4) can be used with 6 or 12-volt service trucks for starting *both* 6 or 12-volt cars. Battery holddown inside of KAR-START prevents battery from bouncing and sliding.

## MODEL KS5

## New features...new low, low price!

New standard duty model for 6 or 12-volt service trucks. Recommended for average service station use.



### MODEL KS4

Heavy duty version of KS5. For 12-volt service trucks *only*.

### MODEL KS4M

Heavy duty version of KS5. For 6 and 12-volt service trucks.

### MODEL KS3

Very heavy duty. For 6 and 12-volt service trucks. CABLES STORE INSIDE CABINET. Recommended for AAA and big volume road service calls.

## SPECIFICATIONS

MODEL	HEIGHT	WIDTH	DEPTH	NET WT.	RECHG. CABLES	STARTING CABLES	SERIES PAR. SW.
KS5	10¾"	12"	*9¼"	18	14' #6	13' #6 (2) 259 strand, neoprene jacket	Plug in
KS4M	10¾"	12"	*9¼"	22	14' #6	16' #4 (2) 1050 strand, neoprene jacket <b>welding cable</b>	Plug in
KS4	10¾"	12"	*9¼"	22	14' #6	16' #4 (2) 1050 strand, neoprene jacket <b>welding cable</b>	Not required
KS3	11½"	20"	*10"	36	14' #2 & #3	25' #4 (2) 1050 strand, neoprene jacket <b>welding cable</b>	Select-O-Matic Type

\*Plus handle and cable hangers.

## ASSOCIATED EQUIPMENT CORPORATION

Manufacturers of Associated-Hartman Rapid Battery Testers & Chargers, Kar-Starts, Fast-Cutter Power Mowers and Fast-Cooker Barbecue Braziers

5170 San Francisco Ave.

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Printed in U.S.A.

SC65935